



Name: _____
Mr. Tiénou-Gustafson & Mr. Bielmeier
Geometry, Period _____
Due Date: Tue, 17 Mar 2015

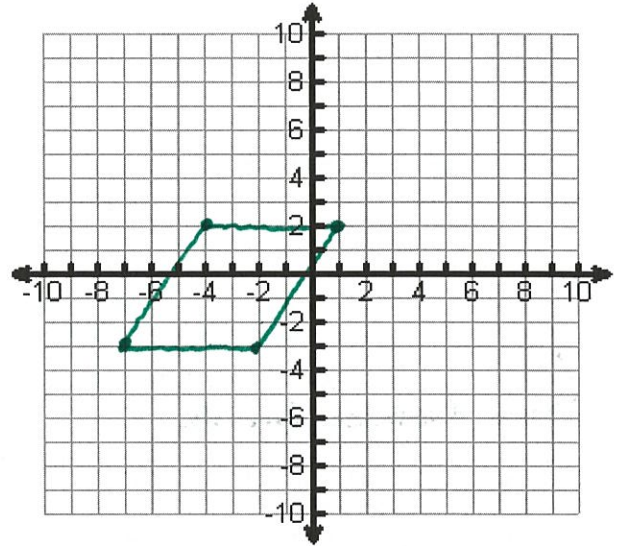
HW120-ParallelogramExploration2

**Geometry
Homework**

Part 1: Complete all class work (if not completed in class)

Part 2: Carefully read and answer the following questions. Be sure to use the appropriate formulas!

1. A parallelogram has vertices at L $(-4, 2)$, M $(-7, -3)$, N $(1, 2)$, and O $(-2, -3)$. Find the area of the parallelogram.



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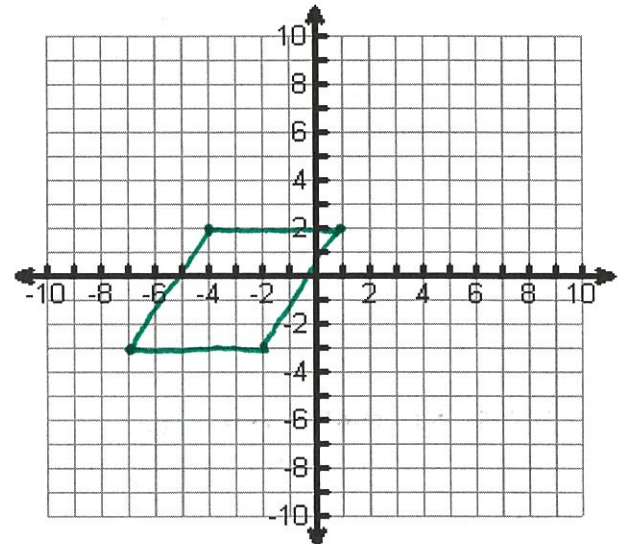
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**Geometry
Homework**

Part 1: Complete all class work (if not completed in class)

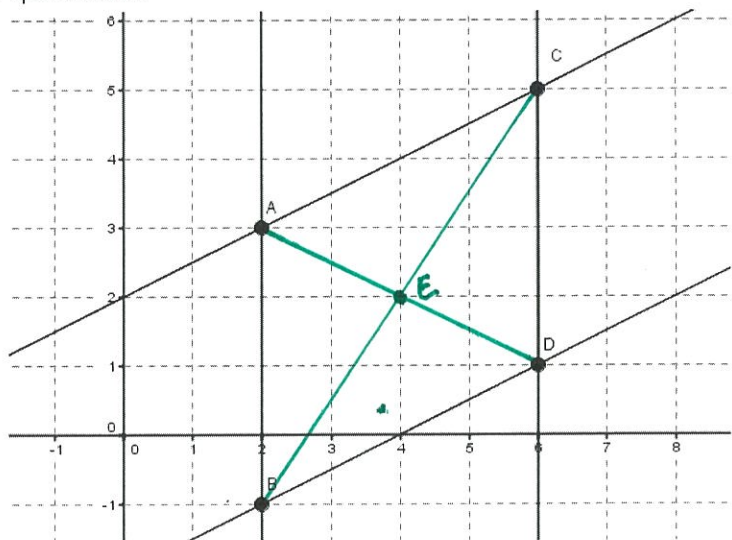
Part 2: Carefully read and answer the following questions. Be sure to use the appropriate formulas!

1. A parallelogram has vertices at L $(-4, 2)$, M $(-7, -3)$, N $(1, 2)$, and O $(-2, -3)$. Find the area of the parallelogram.



2. Use the figure below to answer the following questions.

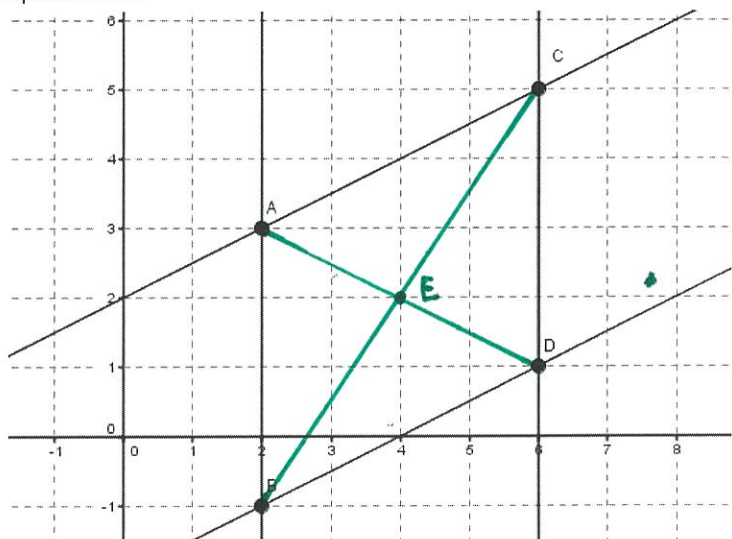
- a. Draw a diagonal line from point C to point B. Draw another diagonal line from point A to point D. Mark the point of intersection as point E.



- b. Find the lengths of \overline{AD} , \overline{AE} , and \overline{ED} . In a complete sentence, describe what you notice about the lengths of segments AE and ED.
use distance formula
- c. What prediction can you make about the lengths of \overline{BC} , \overline{BE} , and \overline{EC} .
- d. Find the lengths of segments BC, BE, and EC and compare the answers to your predictions.
- e. What conclusion can you come to about the diagonals of a parallelogram?

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- f. Draw a diagonal line from point C to point B. Draw another diagonal line from point A to point D. Mark the point of intersection as point E.



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- h. What prediction can you make about the lengths of \overline{BC} , \overline{BE} , and \overline{EC} .
- i. Find the lengths of segments BC, BE, and EC and compare the answers to your predictions.
- j. What conclusion can you come to about the diagonals of a parallelogram?